

VII.—*Notice of Spiders captured by Professor Potter in Canada, with descriptions of such Species as appear to be new to science.*
By JOHN BLACKWALL, F.L.S.

ON the return of my friend Professor Potter from Canada to England in the autumn of 1844, he obligingly transmitted to me specimens of spiders preserved in spirit, which he had captured in that and part of the preceding year in the vicinity of Toronto. The collection comprised twenty-six species, including numerous varieties occasioned by differences in age, sex, and other circumstances of a less obvious character; seventeen of them I have described in detail, under the impression that they are new to arachnologists; one is known to occur in the United States of North America; and the remaining eight species, which are common to the American and European continents, I have introduced as contributing in some measure towards the elucidation of a subject possessing a considerable degree of interest; namely, the geographical distribution of *Araneidea*.

Tribe OCTONOCULINA.

Family LYCOSIDÆ.

Genus LYCOSA, *Latr.*

1. *Lycosa Babingtoni*.

Length of the female $\frac{5}{6}$ ths of an inch; length of the cephalo-thorax $\frac{2}{3}$; breadth $\frac{7}{8}$; breadth of the abdomen $\frac{5}{16}$; length of a posterior leg $1\frac{1}{8}$; length of a leg of the third pair $\frac{7}{8}$.

Mandibles powerful, conical, vertical, very hairy in front, and provided with strong teeth and long hairs on the inner surface: maxillæ gradually enlarged from the base to the extremity, which is obliquely truncated and fringed with long hairs on the inner surface; they are somewhat curved towards the lip, which is almost quadrate: sternum heart-shaped, hairy: these parts are dark brown, the extremities of the maxillæ and lip being tinged with red. Cephalo-thorax hairy, compressed before, depressed on the sides and at the posterior part, with furrows diverging from the middle towards the lateral margins, and a narrow indentation in the medial line of the posterior region; it is of a brown colour, which is darkest at the anterior part, where the eyes are seated, and it has a narrow, longitudinal, yellowish brown band on each side and in the middle, the latter being the most conspicuous. Intermediate eyes of the anterior row larger than the exterior ones; anterior eyes of the quadrilateral the largest of the eight. Legs long, robust, provided with hairs and sessile spines; fourth

pair the longest, then the first, third pair the shortest; they are of a dark yellowish brown colour, the metatarsi and tarsi being the darkest, and the coxæ are dark brown on the under side. The palpi resemble the legs in colour. Abdomen thickly covered with hairs, oviform, rather larger at the posterior than at the anterior extremity, convex above, projecting over the base of the cephalo-thorax; the upper part is brown with a yellowish tinge, a brown rhomboidal band extending from the anterior extremity along the middle, about half-way towards the spinners; on each side of the broadest part of this band is a small indentation surrounded by yellowish brown hairs; sides and under part yellowish brown, spotted with brown, the spots being much the most numerous on the former. Orifice of the sexual organs bisected by a longitudinal septum, which, with the margins, is reddish brown. Plates of the spiracles brown.

The male is smaller and slenderer than the female, and its legs, palpi, mandibles, maxillæ and lip are paler. The radial joint of the palpi is rather longer than the cubital; the digital joint is of an oblong-oval figure, convex and hairy externally, concave within, at the base, which concavity comprises the palpal organs; they are neither highly developed nor very complicated in structure, the upper part being prominent and projecting a process which curves along the inner side and terminates in a point; their colour is reddish brown with yellowish brown intermixed. The compact extremity of the digital joint is densely covered with long, fine hairs on the under side.

I have much pleasure in dedicating this fine species to Charles Cardale Babington, Esq., M.A., St. John's College, Cambridge, to whom I am indebted for an extensive and highly interesting collection of British spiders.

2. *Lycosa propinqua*.

Length of the female $\frac{1}{2}$ an inch; length of the cephalo-thorax $\frac{1}{4}$; breadth $\frac{5}{16}$; breadth of the abdomen $\frac{1}{5}$; length of a posterior leg $\frac{5}{6}$; length of a leg of the third pair $\frac{7}{12}$.

Mandibles powerful, conical, vertical, and armed with teeth on the inner surface: maxillæ straight, gradually enlarged to the extremity, which is obliquely truncated and fringed with long hairs on the inner surface: lip nearly quadrate, being rather broader at the base than at the apex: sternum heart-shaped: these parts are dark brown, the extremities of the maxillæ and lip being tinged with red. Cephalo-thorax hairy, compressed before, depressed on the sides and at the posterior part, with furrows diverging from the middle towards the lateral margins, and a narrow indentation in the medial line of the posterior region; it is of a dark brown colour, with a broad grayish band extend-

ing along each side and the middle. Intermediate eyes of the anterior row rather larger than the exterior ones; anterior eyes of the quadrilateral the largest of the eight. Legs long, robust, provided with hairs and sessile spines; fourth pair the longest, then the first, third pair the shortest; they are of a reddish brown colour. The palpi resemble the legs in colour. Abdomen thickly covered with hairs, oviform, rather larger at the posterior than at the anterior extremity, convex above, projecting over the base of the cephalo-thorax; it is of a dark brown colour mottled with gray on the sides and upper part, a large gray band extending along the middle of the latter and tapering to the spinners; this band comprises in its anterior part a large, rhomboidal, dark brown figure, bifid at its posterior extremity, between which and the spinners are several transverse, curved lines of the same colour; under part dark brown. Sexual organs and plates of the spiracles reddish brown.

Lycosa propinqua, though nearly allied to *Lycosa andrenivora*, appears to be distinct from that species.

3. *Lycosa distincta*.

Length of the female $\frac{1}{4}$ th of an inch; length of the cephalo-thorax $\frac{1}{8}$; breadth $\frac{1}{10}$; breadth of the abdomen $\frac{1}{9}$; length of a posterior leg $\frac{1}{2}$; length of a leg of the third pair $\frac{3}{8}$.

Cephalo-thorax hairy, compressed before, depressed on the sides and at the posterior part, with a narrow indentation in the medial line; its colour is dark brown, with a broad yellowish brown band extending along the middle, which commences at the posterior pair of eyes, presents an irregular outline, and is narrower at its posterior than at its anterior extremity; a broad longitudinal band on each side, and the frontal margin are of the same hue as the medial band. Intermediate eyes of the anterior row rather larger than the exterior ones; anterior eyes of the quadrilateral the largest of the eight. Mandibles conical, vertical, and armed with teeth on the inner surface: maxillæ straight, gradually enlarged to the extremity, which is rounded: lip nearly quadrate, being rather broader at the base than at the apex: these parts are yellowish brown, the lip being much the darkest. Sternum heart-shaped, dark brown, with numerous whitish hairs. Legs long, provided with hairs and sessile spines; fourth pair the longest, then the first, third pair very little shorter than the second; they are yellowish brown spotted with black. The palpi resemble the legs in colour. Abdomen thickly covered with hairs, oviform, convex above, projecting over the base of the cephalo-thorax; it is brown, with a large band of yellowish brown along the middle, which is marked with some minute brown spots, and is intersected by several slightly curved

brown bars on its posterior half; sides yellowish brown spotted with brown; under part yellowish gray. Sexual organs red-brown. Plates of the spiracles brown.

4. *Lycosa modica*.

Length of the male $\frac{7}{24}$ ths of an inch; length of the cephalo-thorax $\frac{1}{6}$; breadth $\frac{1}{9}$; breadth of the abdomen $\frac{1}{9}$; length of a posterior leg $\frac{1}{2}\frac{3}{4}$; length of a leg of the third pair $\frac{2}{5}$.

Cephalo-thorax long, thinly covered with hairs, compressed before, depressed on the sides and at the posterior part, with a narrow indentation in the medial line; it is of a dark brown colour, with a yellowish brown band extending along each side to the frontal margin, where the two unite, and a longitudinal one of the same hue in the middle. Intermediate eyes of the anterior row slightly larger than the exterior ones; anterior eyes of the quadrilateral the largest of the eight. Mandibles conical, vertical, and armed with teeth on the inner surface: maxillæ straight, and gradually enlarged to the extremity, which is rounded: lip nearly quadrate, being rather broader at the base than at the apex: these parts are red-brown, the maxillæ, which are the palest, and the lip having their extremities yellowish brown. Sternum heart-shaped, dark brown with a faint tinge of red. Legs long, provided with hairs and spines; they are of a yellowish brown colour, with some dark brown streaks on the femora and tibiæ, particularly on the upper side; fourth pair the longest, then the first, third pair a very little shorter than the second. The palpi are browner than the legs, and the humeral joint is amply provided with long black hairs on the under side; the radial joint is larger than the cubital and is abundantly supplied with long black hairs; the digital joint is oval, convex and hairy externally, concave within, at the base, which concavity comprises the palpal organs; they are moderately developed, rather complicated in structure, prominent at the upper part, with a slightly curved, finely pointed spine directed from the inner to the outer side across the middle, and are of a red-brown colour. The compact extremity of the digital joint is densely covered with long fine hairs on the under side. Abdomen thickly clad with hairs, oviform, convex above, projecting over the base of the cephalo-thorax; the upper part is dark brown, with a yellowish brown band extending from its anterior extremity along the middle nearly half-way to the spinners; sides faintly tinged with yellow; under part yellowish brown. Plates of the spiracles brown. Spinners brownish black.

5. *Lycosa saccata*.

Lycosa saccata, Latr. Genera Crust. et Insect. t. 1. p. 120; Walck. Hist. Nat. des Insect. Apt. t. 1. p. 326; Hahn, Die Arachn. b. 1. p. 108. tab. 27. fig. 81.

Lycosa amentata, Sundevall, Vet. Acad. Handl. 1832. p. 177.

Araneus niger, Lister, De Aran. p. 77. tit. xxv. fig. 25.

Family SALTICIDÆ.

Genus SALTICUS, Latr.

6. *Salticus scenicus*.

Salticus scenicus, Latr. Genera Crust. et Insect. t. 1. p. 123; Hahn, Die Arachn. b. 1. p. 57. tab. 15. fig. 43, 44.

Attus scenicus, Walck. Hist. Nat. des Insect. Apt. t. 1. p. 406; Sundevall, Vet. Acad. Handl. 1832. p. 202.

Calliethera scenica, Koch, Uebersicht des Arachnidensystems, Erstes Heft, p. 30. tab. 4. fig. 56.

Araneus cinereus, Lister, De Aran. p. 87. tit. xxxi. fig. 31.

7. *Salticus decorus*.

Length of the male $\frac{1}{2}$ th of an inch; length of the cephalo-thorax $\frac{1}{10}$; breadth $\frac{1}{4}$; breadth of the abdomen $\frac{1}{4}$; length of a leg of the third pair $\frac{5}{4}$; length of a leg of the second pair $\frac{3}{5}$.

The legs of this handsome species are robust, and are supplied with hairs and black sessile spines; coxæ, femora, and tarsi yellowish brown; tibiæ and metatarsi brown; the femora of the first and second pairs have a longitudinal brown streak on the anterior side; third pair the longest, then the fourth, second pair the shortest; below the claws is a small scopula or climbing apparatus. Cephalo-thorax large and nearly quadrilateral, sloping abruptly at the posterior part; the anterior part, which is rather prominent, projects a little beyond the mandibles; its colour is dark brown, with a yellowish brown longitudinal band above the lateral margins, and an obtuse angle of the same hue, whose vertex is directed forwards, immediately behind the posterior eyes; it is provided with coarse white hairs which are densest in front, about the region of the eyes. Mandibles small, vertical, dark brown, with white hairs at their base. Maxillæ straight, enlarged and rounded at the extremity, of a yellowish brown colour. Lip oval, dark brown, with a yellowish brown apex. Sternum oval, yellowish brown, with dark brown margins. Eyes very unequal in size, disposed in three rows, constituting three sides of a square, in front and on the sides of the cephalo-thorax; the intermediate eyes of the frontal row are much the largest, and the intermediate eye of each lateral row

is much the smallest of the eight. Palpi short, yellowish brown, with the exception of the digital joint, which is oval, concave within, convex externally, and dark brown covered with white hairs; the radial joint is much shorter than the cubital, and has a large dark brown apophysis at its extremity, on the outer side; palpal organs highly developed, little complicated in structure, with a curved black spine at the upper part, which is directed downwards on the inner side. Abdomen oviform, thickly covered with hairs, projecting over the base of the cephalo-thorax; it is of a fine red colour on the upper side, with a broad curved transverse band at the anterior part, which extends along the sides to the spinners and becomes narrower as it approaches them, an oval spot near the middle, on each side of the medial line, and large heart-shaped spot at the posterior part, all of a rich dark blue colour; at the anterior extremity, adjoining the cephalo-thorax, is a transverse, crescent-shaped, whitish band; under side yellowish white, with a black longitudinal line in the middle of the posterior part, which is enlarged at the extremity near the spinners. Spinners dark brown, the superior pair being the darkest.

8. *Salticus borealis*.

Length of the female $\frac{7}{8}$ ths of an inch; length of the cephalo-thorax $\frac{1}{8}$; breadth $\frac{1}{12}$; breadth of the abdomen $\frac{1}{9}$; length of a leg of the third pair $\frac{1}{4}\frac{5}{8}$; length of a leg of the second pair $\frac{3}{16}$.

Legs robust, particularly the anterior pair; they are of a reddish brown colour, and are furnished with white and black hairs and strong spines; third pair the longest, then the fourth, second pair the shortest; below the claws is a small scopula. The palpi are paler than the legs, and are more amply supplied with white hairs. Cephalo-thorax somewhat quadrilateral, abruptly sloping at the posterior part, depressed before, projecting beyond the mandibles in front; it is of a very dark brown colour, with red-brown hairs in the region of the eyes, and is surrounded by a broad band of yellowish white hairs, which are long and directed forwards below the anterior eyes; a narrow black line extends along each lateral margin. Mandibles small and vertical: maxillæ straight, enlarged and rounded at the extremity: lip oval: these parts are dark brown, with the exception of the extremities of the maxillæ and lip, which are yellowish brown. Sternum oval, provided with whitish hairs; it is of a brown colour, the margins being the darkest. Abdomen oviform, pointed at the spinners, densely covered with hairs, convex above, projecting over the base of the cephalo-thorax; the upper part is of a brown colour, with a yellowish brown dentated band extending along the middle; this band is crossed at its broadest

part, which is rather nearer the anterior than the posterior extremity, by a curved line of the same hue, having its convexity directed forwards, and on each side of the posterior part is a curved yellowish brown line, which extends to the spinners; all the yellowish brown marks are rather obscure, and are faintly bordered with black. Spinners brown. Sexual organs dark brown, with a large orifice. Plates of the spiracles dull yellow.

9. *Salticus fuliginus*.

Length of the female $\frac{1}{2}$ th of an inch; length of the cephalo-thorax $\frac{1}{12}$; breadth $\frac{1}{16}$; breadth of the abdomen $\frac{1}{12}$; length of a posterior leg $\frac{3}{16}$; length of a leg of the second pair $\frac{1}{8}$.

Fourth pair of legs the longest, then the first, second pair a little shorter than the third; the femora and tibiæ of the anterior pair are very robust, brownish black, and are densely fringed with long black hairs on the under side, those on the tibiæ being the longest; their metatarsi and tarsi are red-brown; the second, third, and fourth pairs of legs are dark brown with reddish brown bands, the femora being the darkest; below the claws is a small scopula. The palpi are short and resemble the legs in colour. Cephalo-thorax somewhat quadrilateral, sloping abruptly at the posterior part, and projecting a little beyond the mandibles in front; its colour is brown-black, with some whitish hairs about the region of the eyes and on the posterior slope, and narrow white lateral margins. Mandibles short, strong, vertical, dark brown tinged with red, and having some whitish hairs in front, near the base. Maxillæ straight, enlarged and rounded at the extremity: lip oval: these parts are dark brown with pale reddish brown extremities. Sternum oval, very dark brown. Abdomen oviform, projecting over the base of the cephalo-thorax; it is of a brown-black colour, the upper part being interspersed with light-coloured iridescent hairs, and encompassed by a zone of whitish hairs; two large depressions, placed transversely, occur near the middle of the upper part. Plates of the spiracles dark brown.

The male is smaller and darker-coloured than the female, and the relative length of its legs is different, the first pair being the longest, then the fourth, and the second pair the shortest. Palpi dark reddish brown; the cubital and radial joints are very short, the latter, which is the shorter, projecting a small pointed apophysis from its extremity, on the outer side; the digital joint is oval, convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, not complicated in structure, gibbous and prominent at the base, which extends upwards to the articulation of the cubital and radial joints; their colour is red-brown.

10. *Salticus Sundevalli.*

Length of the female $\frac{1}{2}$ of an inch; length of the cephalo-thorax $\frac{1}{5}$; breadth $\frac{5}{20}$; breadth of the abdomen $\frac{5}{20}$; length of a leg of the fourth pair $\frac{1}{2}\frac{1}{4}$; length of a leg of the second pair $\frac{1}{5}$.

Legs short and robust; the anterior ones, in particular, are powerful, and have the femora dilated; they are amply provided with hairs and strong spines, and are reddish brown marked with dark brown, the latter colour forming obscure annuli at the base of the tibiae and at each extremity of the metatarsi; fourth pair the longest, then the first, second pair slightly shorter than the third; below the claws is a small scopula. The palpi are short, red-brown, and are abundantly supplied with long whitish hairs. Cephalo-thorax large, depressed, and somewhat quadrilateral; it is red-brown, with black lateral margins, which taper from the posterior to the anterior extremity, and the area bounded by the eyes is dark brown; the red-brown parts are covered with grayish hairs, those below the anterior row of eyes being long and whitish. Eyes very unequal in size, disposed in three rows, constituting three sides of a square, in front and on the sides of the cephalo-thorax; the intermediate eyes of the frontal row are much the largest, and the intermediate eye of each lateral row is much the smallest of the eight. Mandibles short, strong, vertical, gibbous near the base, in front, and armed with a few teeth on the inner surface: maxillæ straight, enlarged and rounded at the extremity: lip oval: sternum oval: these parts are dark brown; the mandibles are the darkest, the sternum is much the palest, and the maxillæ and lip are tinged with red at the extremity. Abdomen of an elongated oviform figure, not quite twice the length of the cephalo-thorax, over the base of which it projects a little; it is thickly covered with hairs, and has a broad, dentated, grayish band, somewhat ramified at its posterior extremity, extending along the middle of the upper part, on each side of which is a longitudinal, brownish black band; sides yellowish brown, mottled with dark brown spots; under part yellowish brown, with a large brown band in the medial line, which tapers to the spinners. Plates of the spiracles dull yellow.

The male bears a general resemblance to the female, but it is smaller, darker-coloured, and the relative length of its legs is different, the first pair being the longest, then the fourth, and the third pair being rather shorter than the second. The maxillæ have a conical process at the extremity, on the outer side. The palpi are short; the humeral joint is curved, convex above, plain underneath, with long hairs fringing the edges; it has a short, fine, pointed, pale brown spine near its anterior extremity, in front, and a strong conical projection near its base, on the

under side; the radial joint is provided with an apophysis on the outer side, which has a long slender termination, obtuse at its extremity; the digital joint is narrow, oval, convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, not very complicated in structure, convex and prominent at the base, with an obtuse protuberance on the outer side, and a slightly curved spiny process on the inner side whose point constitutes their anterior extremity; they are of a dark brown colour.

This remarkable species, which is nearly allied to *Salticus tardigradus*, but presents several obvious points of difference in structure and colour, I dedicate to Professor Sundevall of Stockholm, as a testimony of the grateful sense I entertain of the handsome manner in which he put me in possession of his excellent works on arachnology, and of the important information contained in the written communication which accompanied them.

Family THOMISIDÆ.

Genus THOMISUS, Walck.

11. *Thomisus citreus*.

Thomisus citreus, Walck. Hist. Nat. des Insect. Apt. t. 1. p. 526; Latr. Genera Crust. et Insect. t. 1. p. 111; Sundevall, Vet. Acad. Handl. 1832. p. 219; Hahn, Die Arachn. b. 1. p. 42. tab. 11. fig. 32; Blackw. Linn. Trans. v. 19. p. 122.

Thomisus dauci, Hahn, Die Arachn. b. 1. p. 33. tab. 9. fig. 27;

The collection contained specimens with and without a red longitudinal band on each side of the anterior part of the abdomen.

Genus PHILODROMUS, Walck.

12. *Philodromus pernix*.

Length of the female $\frac{3}{10}$ ths of an inch; length of the cephalo-thorax $\frac{1}{8}$; breadth $\frac{1}{8}$; breadth of the abdomen $\frac{1}{7}$; length of a leg of the second pair $\frac{2}{5}$; length of a leg of the fourth pair $\frac{2}{4}\frac{3}{8}$.

Eyes disposed on the anterior part of the cephalo-thorax in two curved transverse rows, in the form of a crescent, whose convexity is directed forwards; the lateral eyes of the posterior row are seated on minute tubercles, the intermediate pair of the same row being rather the smallest, and the intermediate pair of the anterior row rather the largest of the eight. Cephalo-thorax nearly circular, but compressed before, truncated in front, and abruptly sloping behind; it is convex, thinly covered with yellowish gray hairs, and is of a yellowish brown colour, with a large irregular dark brown band extending along each side to the region of the eyes, where a junction of the two takes place, and a longitudinal line of the same hue, whose anterior extremity is the longest, in

the middle of the posterior part. Mandibles subconical, vertical, hairy in front, brown, with two black spots near the base of each. Maxillæ gibbous near the base, on the under side, somewhat pointed at the extremity, inclined towards the lip, of a yellowish brown colour. Lip triangular, rounded at the apex, dark brown. Sternum heart-shaped, pale yellowish brown. Legs long, provided with hairs and sessile spines; they are of a yellowish brown colour spotted with brownish black, particularly on the upper side; second pair the longest, then the first, which a little exceeds the third, fourth pair rather the shortest. Each tarsus is terminated by two curved, pectinated claws, and is provided with a climbing apparatus. The palpi resemble the legs in colour. Abdomen broader in the posterior than in the anterior region, but pointed at the spinners; it is thickly covered with hairs, and its anterior extremity, which projects a little over the base of the cephalo-thorax, is notched in the middle; the upper part is yellowish gray, with a longitudinal dark brown band, which has an angular projection on each side, near the middle, extending from the anterior extremity about half-way towards the spinners; to this band succeeds two distinct, parallel series of oblique bars of the same hue, which diminish in extent as they approach the spinners, and are enlarged and confluent at the extremities; and the whole is encompassed by a brownish black band which does not quite extend to the spinners; four dark brown depressions, situated on the sides of the anterior, medial, dark brown band, two contiguous to its lateral, angular projections, and the other two, which are the largest, near its posterior extremity, form a trapezoid whose shortest side is before; sides and under part yellowish gray, the former being minutely spotted with dark brown. Sexual organs conspicuous, reddish brown. Plates of the spiracles yellow. The body and limbs are supplied with compound, sessile hairs.

13. *Philodromus maculatus*.

Length of the female $\frac{1}{5}$ th of an inch; length of the cephalo-thorax $\frac{1}{12}$; breadth $\frac{1}{12}$; breadth of the abdomen $\frac{1}{10}$; length of a leg of the second pair $\frac{3}{8}$; length of a leg of the fourth pair $\frac{1}{4}\frac{3}{8}$.

Eyes disposed on the anterior part of the cephalo-thorax in two curved transverse rows, forming a crescent, whose convexity is directed forwards; the lateral eyes of the posterior row, which are seated on small tubercles, are rather the largest, and the intermediate eyes of the same row are rather the smallest of the eight. Cephalo-thorax nearly circular, but compressed before, truncated in front, and abruptly sloping behind; it is convex, thinly covered with yellowish gray hairs, and has a broad yellowish brown band extending along the middle; the sides are brown, with a fine, longitudinal, whitish line on the lateral mar-

gins. Mandibles subconical, vertical, hairy in front: maxillæ gibbous near the base, on the under side, somewhat pointed at the extremity, and inclined towards the lip: sternum heart-shaped: these parts are yellowish brown, the sternum being the palest. Lip triangular, brown, the apex, which is pointed, being paler. Legs moderately long, provided with hairs and sessile spines; they are of a yellowish brown colour, with red-brown annuli at the joints; second pair the longest, then the first, fourth pair rather the shortest. Each tarsus is terminated by two curved, pectinated claws, and is provided with a climbing apparatus. Palpi yellowish brown. Abdomen broader in the posterior than in the anterior region, but pointed at the spinners; it is convex above, covered with yellowish gray hairs, and its anterior extremity, which projects a little over the base of the cephalo-thorax, is notched in the middle; the upper part is yellowish brown, with numerous small, brown spots, four indented ones, more conspicuous than the rest, forming near its middle a trapezoid whose anterior side is the shortest, the two posterior ones being the largest of the four; between the trapezoid and the spinners is a series of transverse, curved, brown lines, formed of minute spots, which diminish in length as they approach the latter, and in the middle of the anterior part is an obscure, longitudinal, pale brown band, which has an angular projection on each side; an irregular dark brown band extends along each side to the anus, whose upper margin is penetrated by two oblique, yellowish white spots, the posterior of which is the larger; and the under part is yellowish gray, marked with four longitudinal lines of minute pale brown spots. Spinners brown. Sexual organs conspicuous, dark brown. Plates of the spiracles yellow. The body and limbs are supplied with compound sessile hairs.

The male resembles the female, but it is smaller and darker-coloured, and the relative length of its legs is the same, but their absolute length is greater, a leg of the second pair measuring $\frac{1}{2}\frac{1}{4}$ ths of an inch. Palpi rather long, of a yellowish brown colour, with the exception of the digital joint, which is pale brown; the radial joint is shorter than the cubital, and projects two apophyses from its anterior extremity, one on the outer side, which is long, straight, pointed, and dark brown, the other, which is situated underneath, is shorter, of a red-brown colour, and has a protuberance on its inner side, and a prominent brownish black process at its base, on the outer side; the digital joint is somewhat oval, being more curved on the inner than on the outer side; it is convex and hairy externally, concave within, except at the extremity, which is compact, and comprises the palpal organs; they are moderately developed, not very complicated in structure, with a black pointed spine curved round their extremity and

connected with a yellowish brown membrane situated within its curvature; their prevailing colour is dark brown.

Family DRASSIDÆ.

Genus DRASSUS, *Walck.*

14. *Drassus nocturnus.*

Drassus nocturnus, *Walck.* Hist. Nat. des Insect. Apt. t. 1. p. 615; *Sundevall*, Vet. Acad. Handl. 1831. p. 136. var. b.

15. *Drassus vasifer.*

Drassus vasifer, *Walck.* Hist. Nat. des Insect. Apt. t. 1. p. 620. This species has been found in the United States of North America as well as in Canada.

Family CINIFLONIDÆ.

Genus CINIFLO, *Blackw.*

16. *Ciniflo Bennetti.*

Length of the female $\frac{7}{20}$ ths of an inch; length of the cephalo-thorax $\frac{1}{8}$; breadth $\frac{1}{8}$; breadth of the abdomen $\frac{1}{7}$; length of an anterior leg $\frac{5}{12}$; length of a leg of the third pair $\frac{1}{3}$.

Legs and palpi robust, provided with hairs and sessile spines; they are of a pale reddish brown colour. First pair of legs the longest, then the fourth, third pair the shortest; the metatarsi of the posterior legs are furnished with calamistra. Each tarsus is terminated by three claws; the two superior ones are curved and pectinated, and the inferior one is inflected near its base, on each side of which a fine curved tooth occurs. Cephalo-thorax large, very convex, glossy, depressed in the posterior and anterior regions, broadly truncated in front, compressed before, with furrows on the sides diverging towards the margins, and an indentation in the medial line; mandibles powerful, conical, vertical, gibbous in front, near the base, and armed with two rows of teeth on the inner surface: sternum plain, oval, pointed at its posterior extremity: these parts, with the maxillæ and lip, are dark brown tinged with red, the cephalo-thorax and sternum being decidedly the palest. Abdomen oviform, hairy, convex above, projecting over the base of the cephalo-thorax; it is of a dark brown colour, palest on the under side; a short, obscure, blackish band extends along the middle of the anterior part, on the upper side, the interval between the posterior extremity of which and the spinners is occupied by a series of obscure angular lines of the same hue, whose vertices are directed forwards; the sides are thickly mottled with blackish spots. Spinners eight, the inferior pair being united to the extremity. Sexual organs dark brown faintly tinged with red, presenting the appearance

of two very prominent glossy lobes with a small process between them. Plates of the spiracles reddish brown.

I dedicate this interesting spider to John Joseph Bennett, Esq., F.R.S., British Museum, in acknowledgment of the obligation I am under for his valuable classical assistance in characterizing undescribed species of *Araneidea* for publication.

Genus *ERGATIS*, *Blackw.*

17. *Ergatis annulipes.*

Length of the female $\frac{1}{8}$ th of an inch; length of the cephalo-thorax $\frac{1}{15}$; breadth $\frac{1}{20}$; breadth of the abdomen $\frac{1}{16}$; length of an anterior leg $\frac{1}{6}$; length of a leg of the third pair $\frac{1}{8}$.

First pair of legs the longest, then the second, third pair the shortest; these organs and the palpi are pale brown with darker brown annuli. The metatarsus of each posterior leg is provided with a calamistrum. Cephalo-thorax compressed before, with furrows on the sides diverging towards the margins, and a depression in the medial line of the posterior region: it is of a dark brown colour, and the anterior part, which is very convex, is provided with several longitudinal lines of white hairs. The four intermediate eyes form a square; the other four are disposed laterally in pairs, each pair being seated obliquely on a projection of the cephalo-thorax. Mandibles powerful, somewhat conical, vertical, and armed with a few minute teeth on the inner surface: maxillæ strong, convex underneath, at the base, with the extremities more abruptly curved on the inner than on the outer side, and inclined towards the lip, which is large and somewhat triangular: sternum heart-shaped, thinly covered with white hairs: these parts are dark brown, the sternum being the darkest. Abdomen oviform, thickly covered with short hairs, convex above, projecting over the base of the cephalo-thorax; along the middle of the upper part a broad, dentated, brownish black band extends, which is generally bisected, or nearly so, by an irregular, transverse, yellowish white line, between which and the spinners is a series of obscure lines of the same hue, forming obtuse angles whose vertices are directed forwards; a deep border of yellowish white encompasses the brownish black band; the sides are brownish black mottled with yellowish white, and the under part is yellowish white, with a brown band in the medial line. Spinners eight, the inferior pair being united to the extremity. Plates of the spiracles brown.

The male, though smaller than the female, resembles her in colour and in the relative length of its legs; but the mandibles, which are longer, and curved boldly forwards at the end, have a large prominence on the under side and a minute one in front,

near their base; they are hollowed about the middle of the inner surface, leaving a strong prominence near their extremity, on the lower part of which a few small teeth are situated. The cubital and radial joints of the palpi are short; the former is the stronger, and the latter has a small pointed process projecting from the upper part, in front, and an obtuse apophysis at its anterior extremity, on the outer side; the digital joint is oval, convex and hairy externally, concave within, comprising the palpal organs; they are highly developed, with a strong process curving from below upwards, whose termination extends nearly to the articulation of the cubital and radial joints and has the appearance of being twisted; they are of a reddish brown colour.

This spider, though smaller than *Ergatis benigna*, bears a strong resemblance to it, but may be readily distinguished by the annuli with which its legs are marked.

Family AGELENIDÆ.

Genus AGELENA, Walck.

18. *Agelena Potteri*.

Length of the female, not including the spinners, $\frac{1}{2}\frac{3}{4}$ ths of an inch; length of the cephalo-thorax $\frac{1}{4}$; breadth $\frac{1}{6}$; breadth of the abdomen $\frac{5}{16}$; length of a posterior leg $\frac{1}{1}\frac{5}{6}$; length of a leg of the third pair $\frac{1}{2}\frac{7}{4}$; length of a superior spinner $\frac{1}{10}$.

Eyes disposed in two transverse, greatly curved rows on the anterior part of the cephalo-thorax, the convexity of the anterior row being directed upwards, and that of the posterior row backwards; the eyes of each lateral pair are seated obliquely on a small tubercle, but are not contiguous; the eyes of the anterior row are larger than those of the posterior row, the intermediate ones being the largest of the eight. Cephalo-thorax greatly compressed before, convex, hairy, with furrows on the sides diverging towards the lateral margins, and a long indentation in the medial line of the posterior region; it is of a pale reddish brown colour, with a broad, irregular, longitudinal dark brown band on each side, and brownish black lateral margins; the reddish brown spaces are usually covered with yellowish brown hairs. Mandibles powerful, conical, vertical, armed with two rows of teeth on the inner surface: maxillæ short, straight, increasing in breadth from the base to the extremity, which is rounded and fringed with long hairs on the inner side: lip short, somewhat quadrate, being rather broader at the base than at the extremity: these parts are reddish brown, the mandibles being the reddest, and the maxillæ and lip palest at the extremities. Sternum heart-shaped, with numerous short, pale yellowish brown and long erect blackish hairs; its colour is dark brown, the middle

and margins having a tinge of red. Legs long, robust, provided with hairs and sessile spines; fourth pair the longest, then the first, third pair the shortest; they are of a reddish brown colour. Each tarsus is terminated by three claws; the two superior ones are curved and pectinated, and the inferior one is inflected near its base, on each side of which are two or three fine teeth. The palpi resemble the legs in colour. Abdomen oviform, thickly covered with hairs, convex above, projecting over the base of the cephalo-thorax; along the middle of the upper part extends a broad, dentated, yellowish brown band, on each side of which is a brownish black band; sides and under part yellowish brown; the former is spotted with brownish black, and a broad, dark brown band extends along the middle of the latter. Superior spinners long, slender, hairy, with the spinning-tubes disposed along the under side of the terminal joint. The sexual organs exhibit an orifice having a red-brown margin. Plates of the spiracles dull yellow. The body and limbs are supplied with numerous compound, sessile hairs.

The male is smaller than the female, but resembles her in colour and in the relative length of its legs. The cubital and radial joints of the palpi are short; the former is not provided with an apophysis, but the latter has a large, obtuse one at its anterior extremity, on the outer side; the digital joint is oval, but elongated, the extremity being slender and compact; it is convex and hairy externally, concave within, comprising the palpal organs, which are highly developed, complicated in structure, with a large, spiral spine, brownish black on the outer and pale yellow on the inner side, which is very prominent and recurved at its extremity, and a strong, dark reddish brown process at the outer side projecting beyond the margin of the digital joint.

I have named this handsome species in compliment to Richard Potter, Esq., M.A., Queen's College, Cambridge, and Professor of Natural Philosophy in University College, London, through whose friendly zeal in promoting my zoological researches I have been supplied not only with the spiders introduced to notice in these pages, but also with numerous specimens of British species.

[To be continued.]

VIII.—*Notice of what appears to be the Embryo of an Ichthyosaurus in the Pelvic cavity of Ichthyosaurus (communis?).*
By J. CHANING PEARCE, F.G.S., M.R.C.S.

IN developing an *Ichthyosaurus* which I took up from the rock in the brown laminated lias clay of Somersetshire, and having reversed the animal so as to lay bare that surface which was